DEPARTMENT OF HUMAN SERVICES
HEALTH AND ENVIRONMENTAL TESTING LABORATORY

PUBLIC WATER TESTING GUIDE

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This Guide is intended to summarize the State Health and Environmental Testing Laboratory's ability to provide analytical support for the most recent EPA Safe Drinking Water Act (SDWA) requirements. The SDWA has undergone at least 8 major rules for analytical testing since its inception in 1975. Phase II and Phase V regulations increase the number of parameters monitored from 35 to 84 (including regulated and unregulated parameters) and significantly increase the technical complexity of the analytical procedures and instrumentation.

Test Conductivity	Conductivity
Test TNN	Test for Nitrate & Nitrite
Test Color_Lachat	Test for color
Test E1	Inorganics/Coliform (Phase II and Secondary)
Test E2	Inorganics (Phase II and Secondary)
Test E3	Extended Inorganics (Phase V)
Test E4	Lead and Copper (Lead and Copper Rule)
Test E5	Alkalinity, Calcium, Conductivity, Silica (Corrosion Treatment Parameters)
Test UV_Treatment	Ph, Total Suspended Solids, Hydrogen Sulfide, E. coli, UV_254, Iron Bacteria, Total Coliform, Total Hardness, Calcium, Iron, Magnesium, Manganese, & Turdidity
Test F_Lachat	Test for Fluoride
Test TG	Test for Total Coliform (Coliform Rule)
Test TG	Test for Total Coliform Recheck (Coliform Rule)Required for rechecking an initial positive Coliform
Test HAA_552	Haloacetic Acids
Test GRO	Volatile Petroleum Hydrocarbons
Test VOC 524	Volatile Organics (Phase II and V)
Test SVO 525	Semi-Volatiles by GC/MS (Phase II and V)
Test THM 524	Tri Halomethanes
Test Chlorinated Acids	Herbicide Screen (Phase II and V))
Test Carbam 531	Carbamate Screen (Phase II and V)
Test Radon Water	Radon in water
Test Standard Plate Count	1-4 Standard Plate Count
Test Pest Cl Pcbs 508	Toxaphene, Chlordane, PCB's + Test O compounds
Test Turb	Test for Turbidity
Test Gross Alpha	Gross Alpha
Test V	Radium
Test Radium 228	Radium 228 Only
Test Uranium	Uranium
Test X	Gross Beta
Test GX	Gamma
Test UX	Gross Alpha and Beta
Test TX	Tritium

Currently the State of Maine HETL is not certified for Asbestos and Diquot. The State of Maine has been granted Waivers for Glyphosate, Dioxin, EDB, and DBCP. Other tests are available and may be listed in other testing guides: Private drinking water testing, Environmental, or special requests. Prices are the result of regulatory administrative procedures, either from individual price determination, or from the application of the approved regulated hourly rates.

INORGANIC WATER TESTS

*** TEST CPUB1 - CPUB4 $16.00 per Test**
NEW TEST CODE - COLOR_LACHAT

* **TEST TNN- $ 31.00 -** THIS IS A TEST FOR NITRATE & NITRITE

*** TEST CONDP $16.00**
NEW TEST CODE - CODUCTIVITY
Conductivity

*** TEST E1 $165.00** (with total coliform and e.coli)

*** TEST E2 $154.00[1]**
This is a required initial test for community water supplies and meets EPA Phase II guidelines for most inorganics. The test includes:
NITRATE AND NITRITE NITROGEN, CHLORIDE, HARDNESS, FLUORIDE, COPPER, IRON, MANGANESE, ZINC, ARSENIC, BARIUM, CADMIUM, CHROMIUM, LEAD, MERCURY, SILVER, SELENIUM, SODIUM, COLOR, TURBIDITY, pH and optional TOTAL COLIFORM

[1] IF EPA MANDATES ADDITIONAL DIGESTION, AN ADDITIONAL $17.00 IS NECESSARY

*** TEST E3 $154.00**
This is a test for Phase V inorganics. The test includes:
Nickel, Antimony, Beryllium, Sulfate, Cyanide, and Thallium

*** Test E4 LEAD & COPPER $30.00** Lead & Copper by EPA Method 200.8

*** Test E5 Corrosion Treatment Parameters $66.00**
If the lead and copper rule is exceeded, the parameters include: Alkalinity, Calcium, Conductivity, and Silica

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*** Test FLUORIDE $16.00 per Test**

*** Test G1 - G4 Total Coliform $16.00 per Test [l]**

NEW TEST CODE - TG
Example: TG1 Single bottle for Total Coliform.

1 The testing for total coliform now includes E. Coli at no additional charge.

*** Test GR1 - GR4 Total Coliform Recheck $16.00 per Test [1]**
NEW TEST CODE - TG

Recheck samples are required when the initial bacteria test is positive for total coliforms. Three or four recheck samples are required depending on the number of samples taken each month.

1 The testing for total coliform now includes E. Coli at no additional charge.

- **Test SPCP1 - SPCP4 $16.00 per Test**
- **NEW TEST CODE –** STANDARD PLATE COUNT

Standard Plate Count for 1-4 samples.

- **Test TPUB1 - TPUB4 $16.00 per Test**
- **NEW TEST CODE -** TURB

Turbidity on 1-4 samples.

NEW TEST: UV_TREATMENT $ 157.00

This must be done prior to installing UV Treatment as described in the Maine Drinking Water Program U V Light Policy and will test for:

Ph, Total Suspended Solids, Hydrogen Sulfide, E. coli, Total Coliform, Iron Bacteria, Total Hardness, Dissolved Iron, Magnesium, Dissolved Manganese, Turdidity, & UV_254nm Transmittance.

TESTS FOR ORGANIC COMPOUND CONTAMINANTS

- **TEST M $65.00**
- **NEW TEST CODE -** GRO

The VOLATILE PETROLEUM SCREEN tests to see if the water contains GASOLINE or MTBE (a gasoline component). Use this test if you suspect gasoline in your water.

- **TEST N $150.00**
- **NEW TEST CODE –** VOC 524

The VOLATILE ORGANICS SCREEN utilizies EPA method 524.2.

Listed below are all the compounds routinely tested for using the HETL Volatile Organic Test (EPA Method 524.2). Fuel mixtures such as gasoline, kerosene, and fuel oil #2 may also detected by this method; but are not quantitated. If a fuel mixture is detected in your sample we recommend that it be retested by the Volatile Petroleum Screen (Test M) which is specifically designed to test for these fuel mixtures. This test replaces a previous test; and Trihalomethanes are now quantitated.

Benzene
Bromochloromethane
n-Butylbenzene
tert-Butylbenzene
Chlorobenzene
Chloromethane
4-Chlorotoluene
1,2-Dibromoethane
1,2-Dichlorobenzene
1,4-Dichlorobenzene
1,1-Dichlorethane
1,1-Dichloroethylene
trans-1,2-Dichloroethene
1,3-Dichloropropane
1,1-Dichloropropene
Hexachlorobutadiene
p-Isopropyltoluene
Methylene chloride
Styrene
1,1,2,2-Tetrachloroethane
Toluene
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
Trichloroethene
1,2,3-Trichloropropane
1,2,4-Trimethylbenzene
Vinyl chloride
m-Xylene
Bromobenzene
Bromomethane
sec-Butylbenzene
Carbon tetrachloride
Chloroethane
2-Chlorotoluene
1,2-Dibromo-3-chloropropane
Dibromomethane
1,3-Dichlorobenzene
Dichlorofluoromethane
1,2-Dichloroethane
cis-1,2-Dichloroethene
1,2-Dichloropropane
2,2-Dichloropropane
Ethlybenzene
Isopropylbenzene
Naphthalene
n-Propylbenzene
1,1,1,2-Tetrachloroethane
Tetrachloroethene
1,2,3-Trichlorobenzene
1,3,5-Trichlorobenzene
1,1,2-Trichloroethane
Trichlorofluoromethane
Trichlorotrifluoroethane
1,3,5-Trimethylbenzene
o-Xylene
p-Xylene

*** TEST O 525 $220.00**
NEW TEST CODE – SVO 525
The SEMI-VOLATILES ORGANIC SCREEN test uses a solid phase extraction technique to extract higher boiling compounds from the water sample. This is an EPA GC/MS method that follows EPA procedure 525.2.

Current analytes include:
Hexachlorobenzene, Hexachlorocyclopentadiene, Benzo(a)pyrene, Di(2-ethylhexyl)adipate, Di(2-ethylhexyl)phthalate, Alachlor, Endrin, Lindane, Simazine, Aldrin, Heptachlor, Heptachlor Epoxide, Methoxychlor, Atrazine, and Dieldrin.

- **TEST THAAC $140.00**
- **NEW TEST CODE –** HAA 552

This test is performed according to Safe Drinking Water Act criteria for total HALOACETIC ACIDS. HALOACETIC ACIDS can result from chlorination of water used for drinking.
The four HALOACETIC ACIDS: Chloroacetic acid, Dichloroacetic acid, Bromoacetic acid and Trichloroacetic acid are tested by EPA method 552.2 .

- **TEST P $90.00**
- **NEW TEST CODE –** THM 524

This test is performed according to Safe Drinking Water Act criteria for total TRIHALOMETHANES. Trihalomethanes can result from chlorination of water used for drinking.
The four chlorination byproducts: chloroform, bromodichloromethane, chlorodibromomethane, and bromoform are tested by EPA method 524.2 (modified).

- **TEST Q1 HERBICIDE SCREEN $220.00**
- **NEW TEST CODE –** CHLORINATED ACIDS

HERBICIDE SCREEN - A general screening method for the detection of the chlorinated acid herbicides (2,4-D) and residues of Dalapon, Dinoseb (DNBP), DICAMBA and PENTACHLOROPHENOL.
Method: EPA 515.2 - Determination of Chlorinated Acids in water by Gas Chromatography with an Electron Capture Detector.
EPA 552.2- For Dalapon

*** Test Q3 Carbamate Pesticides $140.00**
NEW TEST CODE – CARBAM 531
This is an EPA HPLC method 531.1. Current analytes include:
Carbofuran, Oxamyl, Aldicarb, Aldicarb Sulfoxide, Aldicarb Sulfone, 3-Hydroxycarbofuran, Carbaryl, Methomyl

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- **Test TSO/TCP**
- **NEW TEST CODE –** PEST CL PCBS 508 (replaces tcp)

_____PESTICIDE SCREEN $305.00
NOTE: This test should be combined with Test O for Phase II and Phase V compliance, this test can not be ordered separately without Test O 525.

PESTICIDE SCREEN- A method for the detection of selected Chlorinated Hydrocarbon Pesticides and PCB's that cannot be seen by method 525.2 at the EPA MCL's.
Method: These compounds are extracted by 525.2 and analyzed by EPA Method 508. Determination of chlorinated pesticides in water by Gas Chromatography with an Electron Capture Detector. Analytes: Chlordane, PCB's and Toxaphene

RADIOLOGICAL TESTS

*** TEST S $28.00 NEW TEST CODE –** RADON WATER
The RADON WATER test tests for naturally occurring radioactive gas present in many drilled wells.

*** TEST U $60.00 NEW TEST CODE –** GROSS ALPHA PPT
This test measures GROSS ALPHA, the naturally occurring radioactivity in water, but does not test for radon. This test is required for public water supplies.

*** TEST V $215.00**
Test for RADIUM 226 & 228 in water. This test is mandated if gross alpha (Test U) is more than 5 picocuries.

* **TEST VY $165.00 NEW TEST CODE –** RADIUM 228
Test for RADIUM 228 ONLY in water.

*** TEST URANIUM $16.00**
Test for URANIUM 238 in water. This test is mandated if gross alpha (Test U) is more than 15 picocuries.

***TEST X $60.00**
Test for GROSS BETA in water

***TEST GX $94.00**
Test for GAMMA in water

***TEST UX $99.00**
Test for GROSS ALPHAand GROSS BETA in water.

***TEST TX $94.00**
Test for TRITIUM

NOTE: HETL ANALYSIS PROCEDURE FOR PHASE II AND V TESTING

The HETL has agreed to send water collection kits to those systems identified by the DHE. These systems have been grouped in segments in order to allow better scheduling of complex tests.

Sample containers are sent out using the DHE listing. If the water supply chooses not to use the HETL, the bottles should be sent back to the HETL along with a notification to DHE indicating the name of the certified laboratory that will perform the analysis.

Filled water bottles should be sent to the HETL within 30 days in order to assure proper analysis. Bottles (full or empty) that are not received within this 30 day time frame shall indicate non-compliance with mandatory testing. The names of systems not returning sample bottles will be reviewed by DHE.